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MLRA 7-FOR SSO
Water Conservation Area \ FL 615
Provisional Ecological Sites Descriptions
By
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INTRODUCTION

No Provisional Ecological Sites Descriptions have ever been developed within the WCA-FL615 Initial Soil Survey. The USDA-NRCS MLRA 7FOR Soil Survey office determined the need to develop the first Provisional Ecological Site Description for this area as part of the Initial Soil Survey project. Using historical information such as the 26 Ecological Communities of Florida Publication (USDA-NRCS), Florida Natural Areas Inventory - Natural Communities Guide (2010), field data collected (EPA and USDA-NRCS) and a newly developed digital soil survey, in combination with new technology (ERDAS Image, Arc SIE and GIS); a digital Provisional Ecological Site map and narrative description was developed.



OBJECTIVE

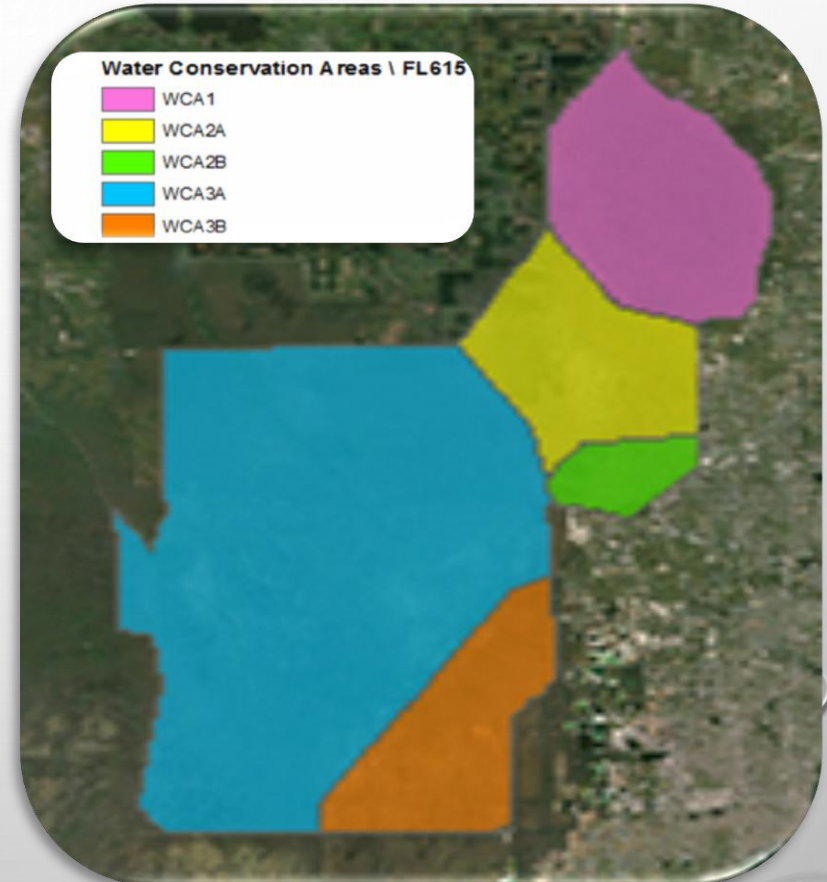
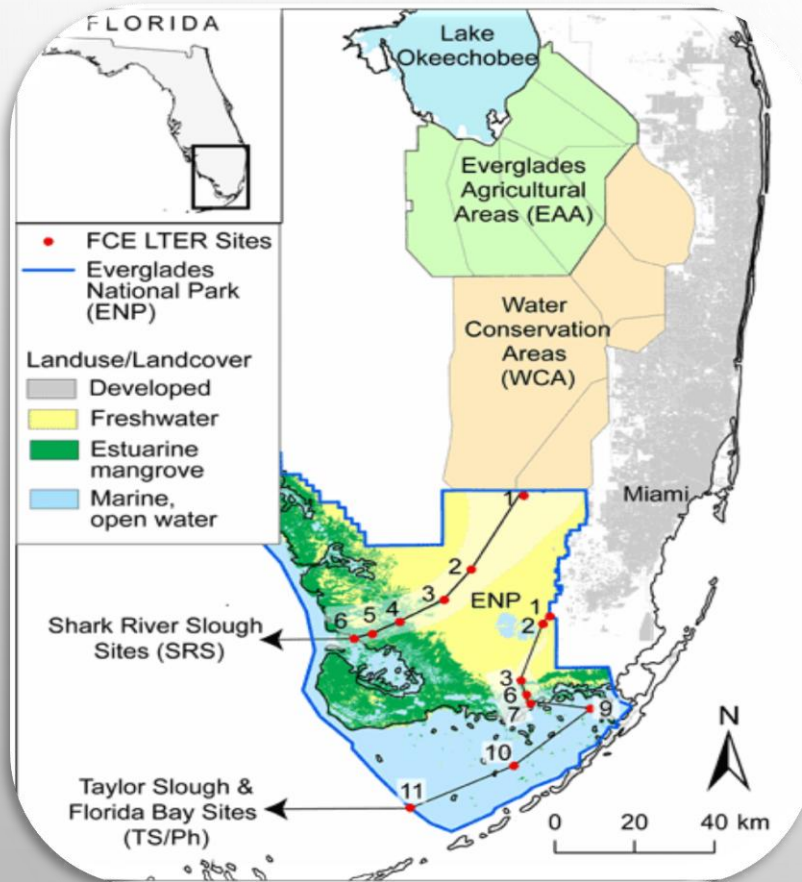
1. Develop a provisional ecological site description inside of the MLRA 156A using GIS, ERDAS imagine & Arc SIE.





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Geographic Location



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IMPORTANT FACTS ABOUT THE EVERGLADES



1. According to Touropia magazine (December 2014) it has been ranked the top 4th position from the 10 Most Important Wetlands in the World.
2. It is one of the world's only rain-fed flooded grasslands on limestone and North America's most extensive flooded grassland.
3. According to Duke University it is the largest subtropical wetland in US.

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Reference materials and Software's

1.PLANTS

- A. WATER MANAGEMENT DISTRICT
- B. DEPARTMENT OF ENVIRONMENTAL PROTECTION
- C. FLORIDA FISH AND WILDLIFE CONSERVATION
- D. FLORIDA NATURAL AREAS INVENTORY
- E. 26 - FLORIDA ECOLOGICAL SITES

2. SOILS AND LANDSCAPE

- A. USDA-NRCS
- B. EPA

3.SOFTWARES

- A. GIS 10.3
- B. ERDAS 15
- C. ARC SIE

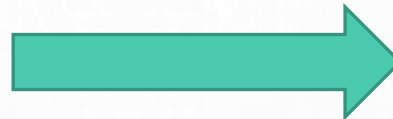
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We use collected field data (soils, plants, hydrology and landscape) and cross check our new information with the 26 Ecological Sites and determine that there was a general fit with the description made on the document. Then we cross checked with the Florida Natural Areas Inventory Natural Communities Guide 2010 and found which of their ecological sites fit our findings and historical references.



26 Ecological Sites of Florida

24-Sawgrass Marsh

14-Tropical Hammocks community



Florida Natural Areas Inventory Natural Communities Guide 2010

Freshwater Non-Forested Wetlands

1. Glades Marsh
2. Slough Marsh
3. Slough

Freshwater Forested Wetland

Strand Swamp
Hydric Hammock

After finding the similarity between Field data, 26 Ecological Sites of Florida and Florida Natural Areas Inventory Natural Communities Guide 2010, we developed two Provisional Ecological Site Descriptions with two main vegetative communities that fit our mapping concepts in the WCA areas.

Glades Freshwater Wetlands

1. Glades Sawgrass Marsh
2. Glades Slough Marsh

Glades Freshwater Forested Wetlands

1. Glades Hydric Hammock
2. Glades Strands Swamps

Prepared MLRA 156A Provisional
Ecological Site Description write-up.

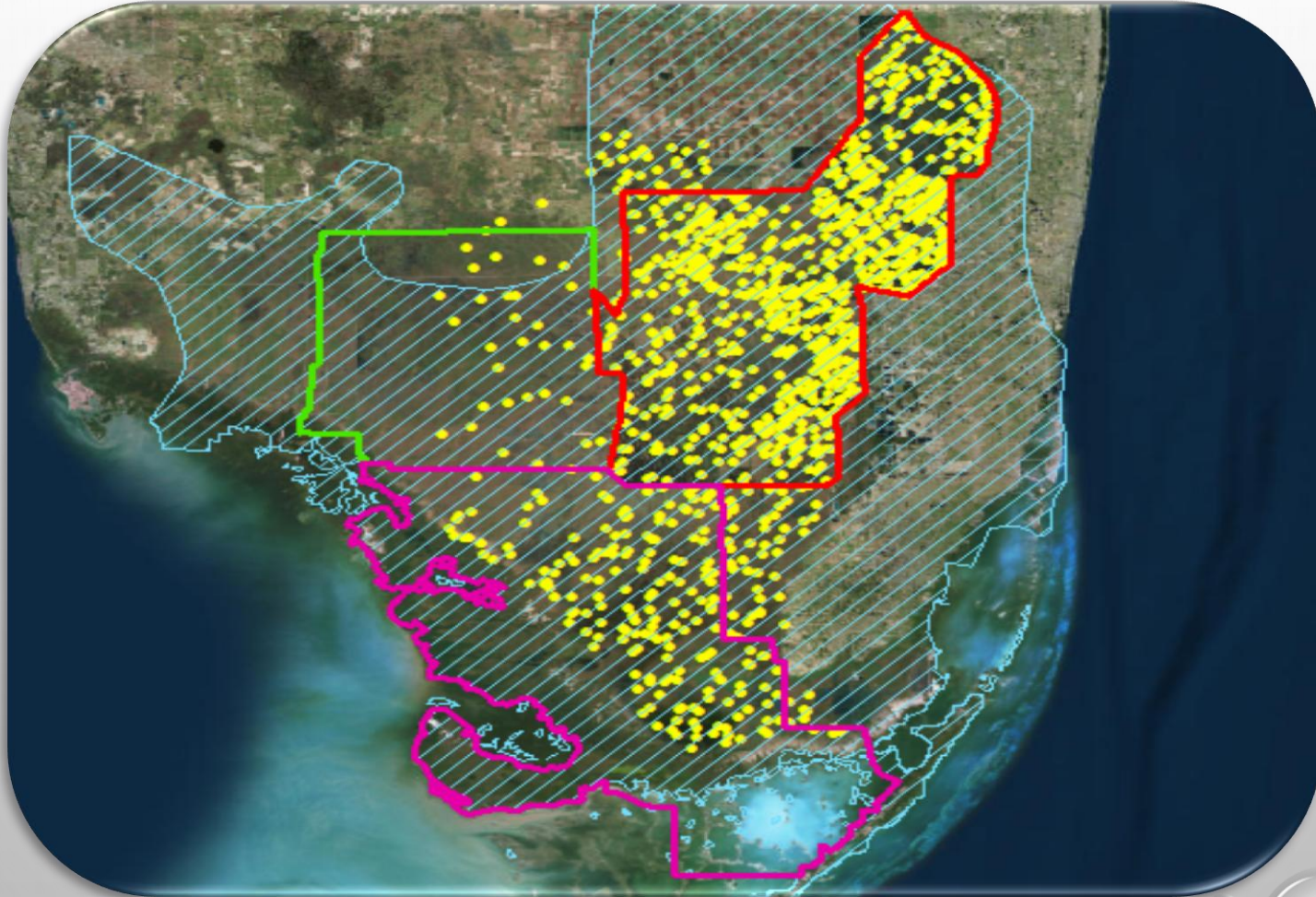




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Used over 1,150 points in and out side of the areas of interest



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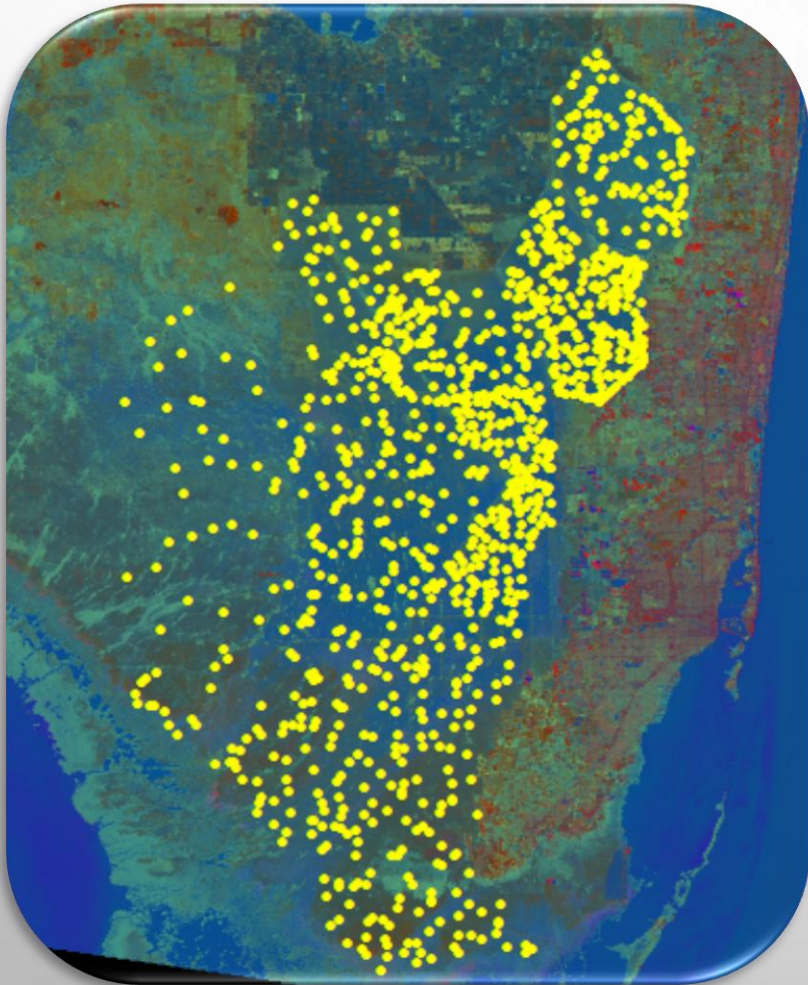
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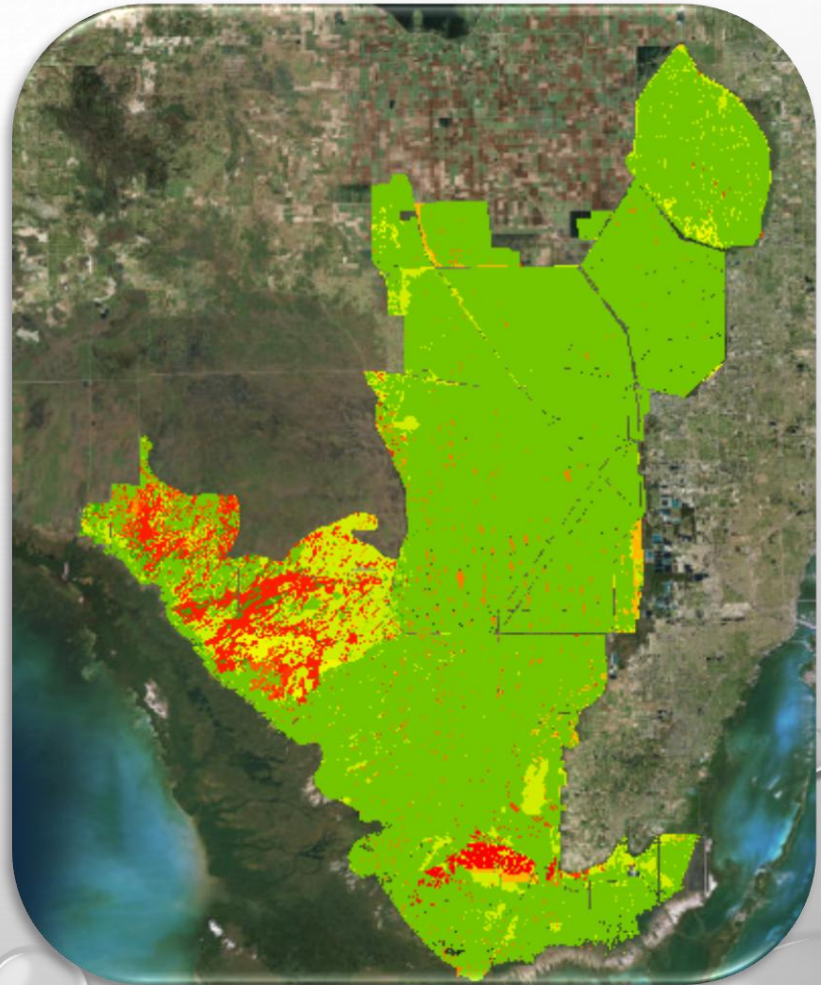
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Land Sat



Vegetative Raster Map



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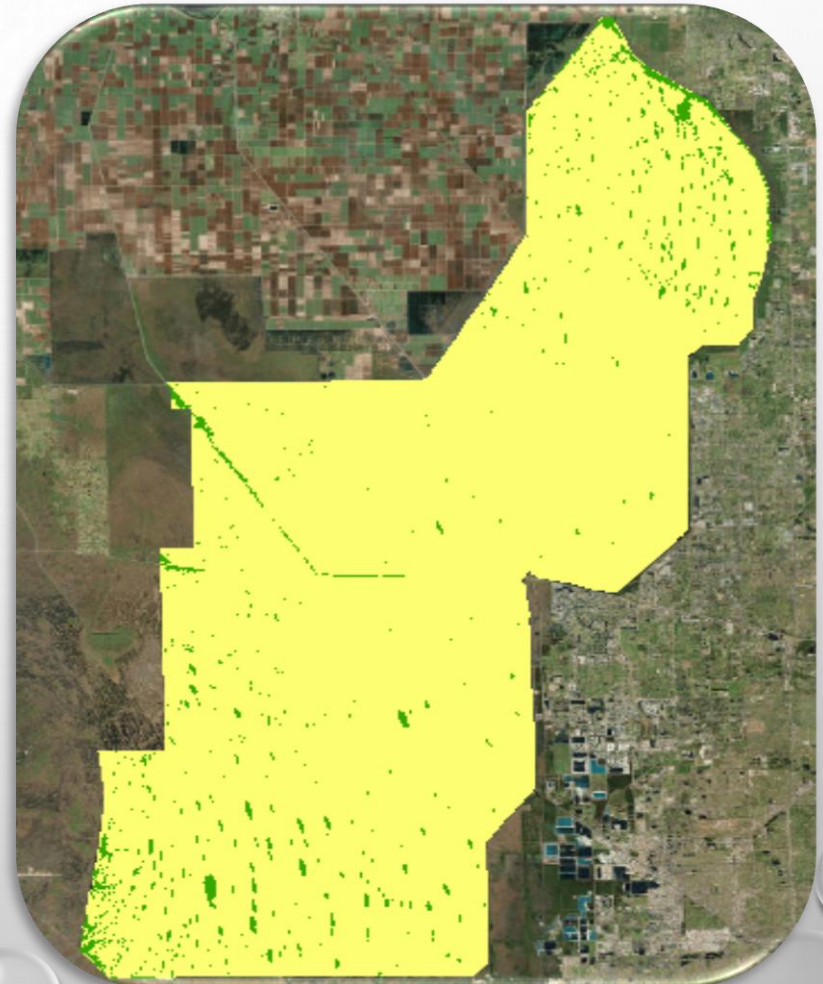
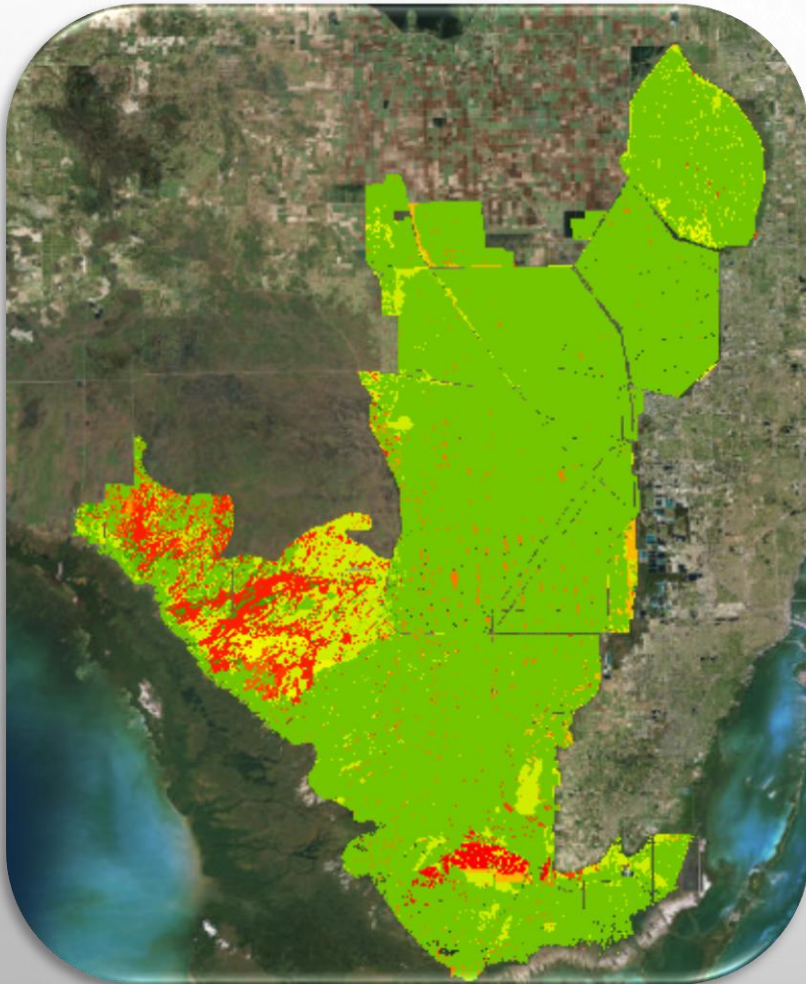


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QC

Narrow to AOI



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PROVISIONAL ECOLOGICAL SITE **How Effective**



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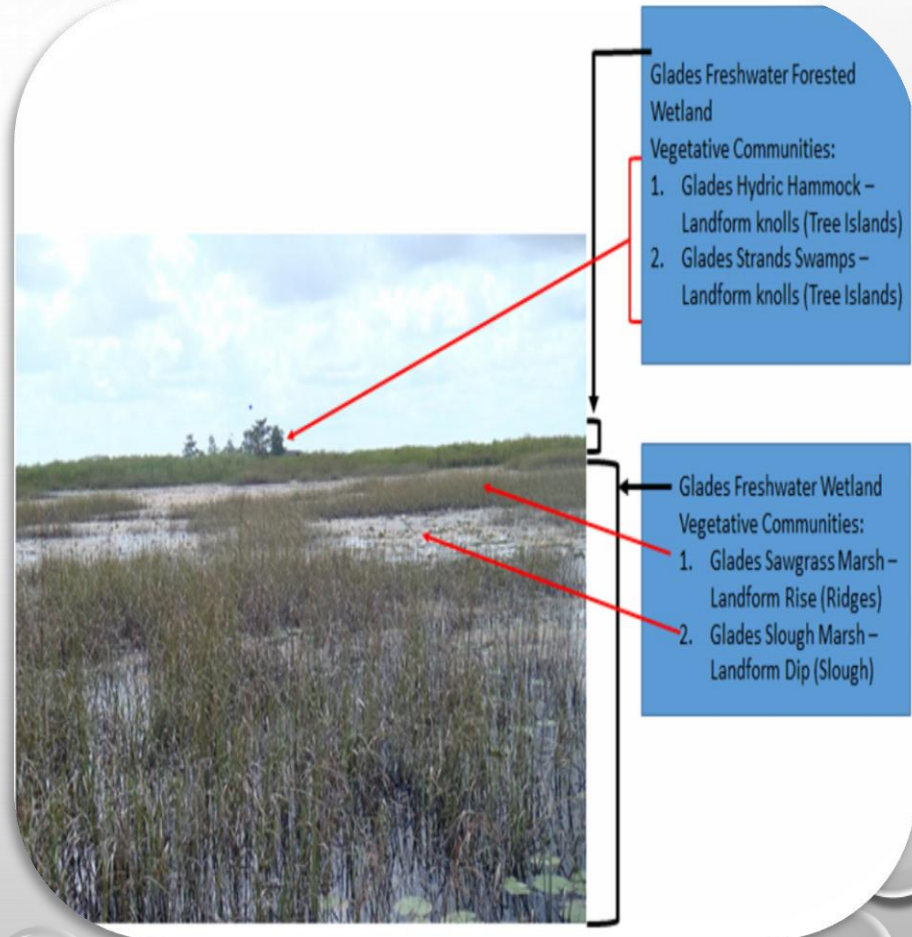
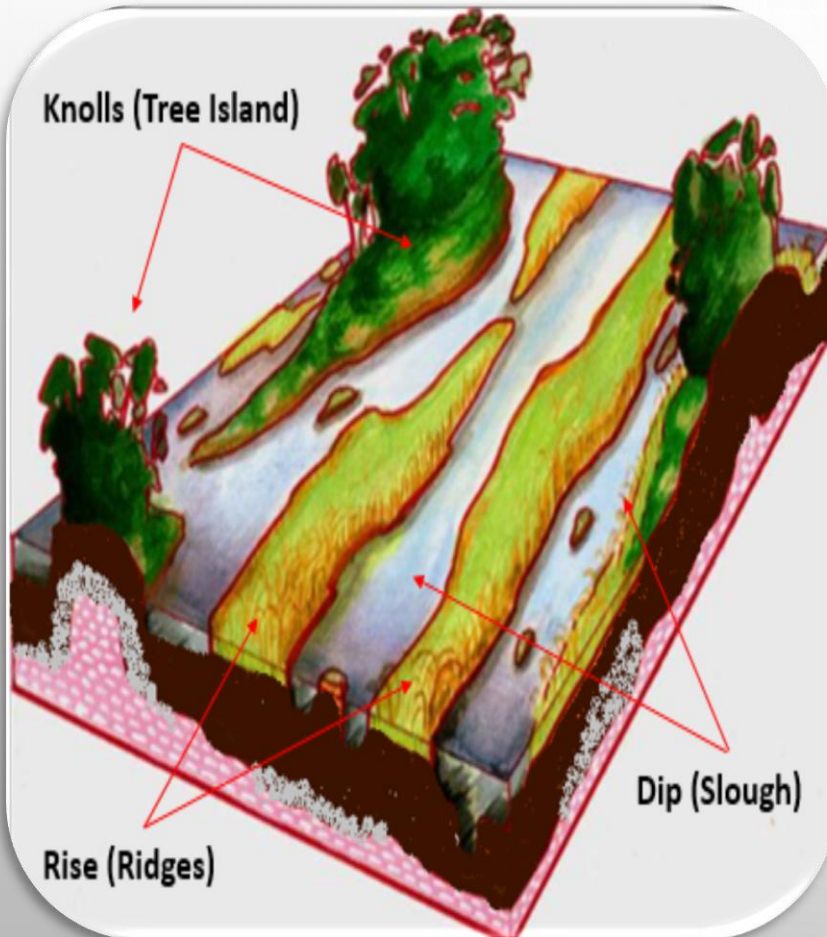


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PROVISIONAL ECOLOGICAL SITE Landscape Plants Relation



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PESD Glades Freshwater Wetland

Description: Glades Freshwater Wetland is an open expanse of sawgrass in areas where the soil is saturated or covered with surface water 6 to 9 months or more during the year. Areas that have been impacted by longer hydro periods, faster (overland) water flow, Alligator habitat, and fire will support less sawgrass; and it will be mainly dominated by floating aquatic herbaceous plants.

Other aspect described and documented are: Range, Climate, Vegetation, Natural Process, Rare Species, Animals, Geology, Coastal Plain, Marine Terraces, Landscape, Soils and Land Use.

Glades Sawgrass Marsh - Rise (Ridges)



Glades Slough Marsh - Dip (Slough)



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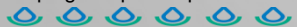
Glades Hydric Hammock – knolls (Tree Islands)

PESD Glades Freshwater Forested Wetland

Description: Glades Freshwater Forested Wetland are isolated areas of mineral soil or organic materials on knolls (Tree Islands) above the sawgrass prairie that have shorter hydro periods and are subject to occasionally flooded conditions that support Hardwood and “dry” tree islands vegetation. A heavy canopy closure, causing deep interior shade, is prevalent. These conditions contribute with the control of the temperature and moist retention. The vegetation is dense, heavy, strong wood, and shallow spreading root system which adapt them to harsh wind, periodic droughts and flooding conditions.

Other aspect described and documented: Range, Climate, Vegetation, Natural Process, Rare Species, Animals, Geology, Coastal Plain, Marine Terraces, Landscape, Soils and Land Use.

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Glades Strands Swamps – knolls (Tree Islands)



CONCLUSION

- Two Provisional Ecological Site Descriptions were developed.
- GIS PESD raster's and feature classes were developed.
- Two MLRA PESD projects were completed: PESD – MLRA 156A - Glades Freshwater Wetland, Pahokee muck (53,834 acres) and PESD – MLRA 156A - Glades Freshwater Wetland, Lauderhill muck (100,438 acres).



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QUESTIONS?

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